

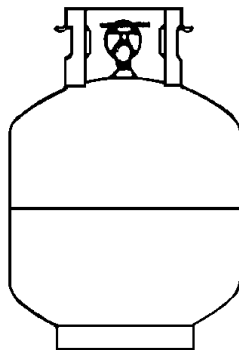
Liquid Propane Valve Requirements and Disposal of Older Valve Equipped Cylinders

Most of LP Gas Valve requirements are based on National Fire Protection Association standard 58 (NFPA 58), the *LP-Gas Code*. All new cylinders of propane capacities from 4 to 40 pounds must have an overfill prevention device (OPD). This has been in effect for a couple of years.

There is also a requirement that no cylinder in the same size range may be filled after March 31, 2002, if it does not have an OPD. Therefore, many cylinders became obsolete on April 1, 2002.

Some people who know about this requirement have already purchased a new cylinder with the OPD and are looking for a way to dispose of their old cylinder.

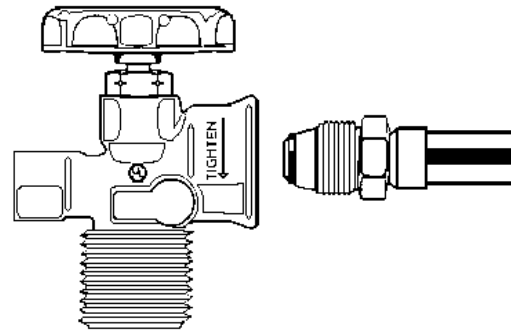
WHAT IS THAT VALVE ON MY PROPANE TANK?



If you cook using a gas grill fueled by propane, you may have noticed a change in how the valve on the propane tank looks. Also, if you bought a gas grill in the last couple of years, the tank that came with the grill and the connection on the grill probably look different from what you are accustomed to seeing.

POL Valves

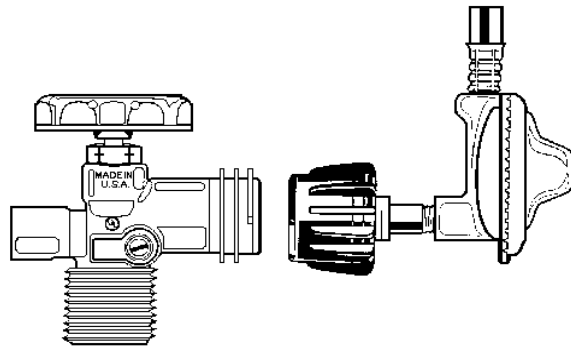
The old-style tank valve is known as a POL valve, named for the manufacturer that devised it. You tighten the connection to the grill by turning the fitting counter-clockwise, and you usually need to use a wrench to make the connection tight enough to prevent leaks. With a POL valve, if you open it with no fitting attached, propane is freely released. That's why a plug is required to be screwed into the valve during transport of the tank and when it is stored not connected to the grill. The plug is an attempt to keep little hands from opening the valve and creating a danger for themselves and others in the area. This valve also has a built-in bleeder valve for the refiller technician to use to check for proper filling and a pressure relief device to prevent over pressurization of the tank.



A safety note for you: Propane tanks of any design must be transported and stored in an upright position so the pressure relief device will function properly. Laying the tank on its side in the trunk of your car is a potentially very dangerous situation.

Acme Valves

What has changed? There are actually two pieces of equipment that changed. The most obvious is the valve on the propane tank. It looks bulkier because there are external threads visible. This valve is known as an Acme valve, for the Acme threads visible on the valve. It also has a slightly larger body, for reasons to be explained later. The other piece of equipment that changed is the connector on the end of the grill hose. If you bought a new grill in the last couple of years, you have probably already noticed that the fitting on the grill is also larger and that you can now attach the hose to the tank without having to use a wrench. One of the benefits is that the connector is designed to be attached to the tank without tools. You only have to hand-tighten the connector. And, you tighten as you would normally tighten a threaded fitting, by turning it to the right (clock-wise). The gas-using device (grill) must be securely attached before a built-in safety device opens and allows the gas to flow freely.

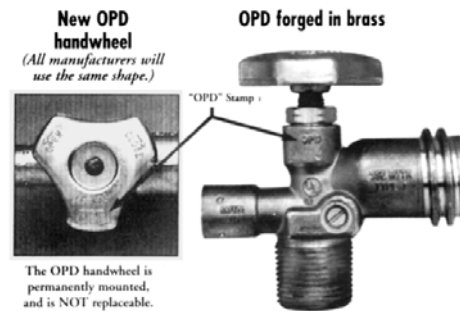


What happens if you have an older grill and have to replace the tank and get one with the Acme valve? Use it. They are compatible, as the left-hand-thread fitting on your older grill will screw into the internal threads on the Acme valve.

Also, there is another type of valve not widely available yet. This one is a quick disconnect, somewhat like a fitting that attaches an air hose to a pneumatic tool. This fitting will be covered later in this article.

OPD Valves

There is a new type of valve quickly coming into use. This valve is the Overfill Prevention Device (OPD) valve. It looks a lot like the Acme thread valve or the quick disconnect valves you have been seeing for a few years. The OPD valve has another safety feature inside the container to prevent overfilling the cylinder. You can tell if you have an OPD valve by looking at the hand wheel. The OPD valve has a distinctively-shaped hand wheel. It has three lobes instead of the five or more on older valves.



All new cylinders from 4 pounds up to 40 pounds propane capacity must have the OPD valve. All cylinders from 4 pounds up to 40 pounds will have to have an OPD valve by April 1, 2002, or it will be illegal to fill them. It will not be illegal to use or transport them, only to fill them.

You can find cylinders with the new OPD valves at many places, including propane companies, hardware stores, and discount stores.

When You Get Your Tank Filled

Now that you know how to make the connection between the grill and the tank, you need to know what the difference is in getting your tank refilled. If you take it to a place that fills your tank, you will notice no difference in filling the tank. The same piece of equipment that fills tanks with the POL valve will also fill through the Acme valves or OPD valves because of those internal threads. But there is a difference you need to recognize after you get your tank filled. As you get ready to travel with your newly-filled tank, instead of screwing a plug into the internal threads, you may press the optional dust cap over the external threads. The Acme valves and OPD valves have some built-in safeguards that prevent the escape of gas when the tank is not attached to the grill, even if the valve is open. This is the reason for the valve body being slightly larger.

However, if you screw a plug into the valve, you defeat these safeguards. **So be sure to leave the plug out of the Acme valves and OPD valves!**

Safeguards in the New Valves

There are some other safeguards in the valve and connector combination that stop the gas flow if the tank is involved in a fire, even if the tank is still attached to the grill and even if the valve is wide open. Another safeguard limits the flow of gas from the tank should the hose break or leak.

Disposal of Grill Gas Cylinders

With the recently effective new rules on the required equipment on grill cylinders, many people are looking for ways to get rid of their old cylinders. This article will first explain what you should not do, and then will give as many suggestions as we can, and then explain the background for the actions.

What you should NOT do

- Do not abandon a cylinder. If you do so, the city or county will likely incur a significant disposal fee. They will have to call in the hazardous material disposal team to deal with the abandoned cylinder.
- Do not put your cylinder into a dumpster or trash can. It results in the same disposal fee problem. It can also pose a serious safety concern if the trash truck compacts its load, as it could crush and rupture the cylinder, releasing the rest of the propane.
- Do not cut up your cylinder. Even though the cylinder won't run your grill anymore, it still contains propane and can seriously burn you, or even explode, if you provide a source of ignition, such as cutting steel with steel.

What you should do

1. Exchange your cylinder for one with the new equipment. Most exchange companies charge a one-time upgrade fee and you get a filled cylinder with the latest equipment.
2. If you already have your new cylinder, you may be able take your old cylinder to one of the larger exchange locations and give it to them. (This will be a donation. Do not expect to receive a "deposit.") They are more likely to have a place to put your old cylinder than a smaller location. Not

- all exchange companies provide this service. Blue Rhino and RapidXchange are two that we know of that try to provide the service.
3. Check with your local propane company. Some of them will take your old cylinder and send off several at a time for refurbishment and reuse.

Please feel free to call Nags Head Fire Rescue at 252-441-5909, or the North Carolina Department Of Agriculture Standards Division at 919-733-3313 for more information.